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Attorney's Docket No.: 07072-159001

REMARKS

Proposed claim amendment for claims 1 and 16

Applicant proposes amending claim 1 to clearly point out that claim 1 contemplates *two*

distinct kinds of data:

1. database records, and

2. all other data besides database records (hereafter referred to as "generic data".)

In general, the data-storage system treats these two kinds of data differently. In particular:

1. database records may be subject to certain data verification steps, whereas

2. generic data may be subject to *different* data verification steps.

Because database records and data other than database records (i.e. generic data) are
subject to different processing steps, it is useful for the system to distinguish between them.
Failure to do so could mean subjecting generic data to time-consuming data verification steps
that would be appropriate primarily for the actual database records, not for generic data.

One way to distinguish between database records and generic data is to designate certain
locations as being only for database records and other locations as being only for generic data.
That way, a data-storage system can determine whether particular data is a database record or not
by simply knowing where that data is stored. If the system learns that the location is designated
for generic data, then the system will know that the data stored therein must be generic. If, on the
other hand, the system learns that the storage location is designated for storing database records,
then the system will know that the data stored therein must be a database record.

To make this method work, it is important that the system avoid the mistake of writing a
database record to a location that is designated for generic data, and vice versa. The invention
recited in claim 1 and 16 is intended to ensure that such mistakes are avoided. In an effort to

make this unmistakably clear, Applicant proposes entry of the above amendments. For reasons set forth below, these amendments clearly distinguish over *Kedem*.

Applicant proposes to amend claim 16 in a manner similar to claim 1 for reasons discussed above in connection with claim 1.

Section 102 rejection of claims 1 and 16

Nowhere does *Kedem* make any distinction between database records and generic data (i.e., data other than database records).

Referring to FIG. 1 of *Kedem*, the Office correctly notes that HOST APP A instructs the system to copy file **36** to location **40**.

However, the data in file **36** can be *any kind of data whatsoever*. The *Kedem* system never asks whether the location **40** is a proper location for the content of file **36**. In particular, *Kedem*'s system never asks whether location **40** is designated for storage of database records or generic data. Instead, *Kedem* simply copies file **36** to location **40** as instructed.

Accordingly, in *Kedem*, it is possible to mistakenly copy a database record to a location designated for generic data. It is also possible to mistakenly copy generic data into a location designated for a database record.

The Office's comments on claim 2 suggest that *Kedem*'s FIG. 2 is perceived as somehow disclosing the information for identifying extents that are designated for storage of database records.

As the Office correctly points out, FIG. 2 shows data that identifies where extents begin and end. However, it is not possible to tell from this data which extents are intended for storage of database records, and which extents are intended for storage of generic data.

It is therefore apparent that *Kedem* fails to teach claim 1's limitation of maintaining

"information for distinguishing between

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extents of the logical device that are designated for storage of **database records** and

extents of the logical device that are designated for storage of **data other than database records**"

Accordingly, Applicant requests reconsideration and withdrawal of the section 102 rejection of claims 1 and 16.

Proposed claim amendment for claims 9 and 17

Applicant proposes amendments to claims 9 and 17 that clearly point out that extents can have different processing instructions. These processing instructions are suggested by the pennants in Applicant's FIG. 4-6.

Claim 9 is directed towards recognizing errors that arise when processing instructions for one extent somehow make it impossible to carry out processing instructions for another extent. This difficulty can arise when two extents overlap, as shown in Applicant's FIG. 6, in which:

1. processing instructions for *extent-1* require execution of instructions represented by the left-pennant; and

2. processing instructions for *extent-2* require *not* executing the instructions represented by the left pennant.

Since *extent-1* overlaps *extent-2* in Applicant's FIG. 6, these two conditions cannot both be met. It is not possible to execute the left-pennant and to, at the same time, not execute the left-pennant. They are contradictory. In effect, carrying out the instructions for *extent-1* makes it impossible to also carry out the instructions for *extent-2*.

The situation in Applicant's FIG. 6 contrasts with that in Applicant's FIG. 5, in which the two extents overlap, but there is nevertheless no contradiction in the processing instructions for the two extents. In FIG. 5, one can process the instructions for *extent-1* without making it impossible to process instructions for *extent-2*.

Section 102 rejection of claim 9

The Office cites col. 9, lines 43-50 of *Kedem* as teaching instructions associated with extents. This passage teaches using "data from the extents track **75** to obtain the location of the initial destination track."

The Office seems to be confusing *data* and *instructions*. Data that provides a location of a track does not amount to instructions of any kind. One "*executes*" instructions; one does not, by any stretch of the imagination, "*execute*" data.

Moreover, claim 9 as amended recites:

> "determining that execution of the processing instructions for a first extent does not preclude execution of processing instructions for the second extent;"

In *Kedem*, there is no such determination step. Nowhere does *Kedem* ever suggest that the act of executing instructions associated with one extent might somehow make it impossible to execute instructions associated with a completely *different* extent.

Claim 17 has limitations similar to claim 9. Applicant requests reconsideration and withdrawal of the section 102 rejection of claim 17 for the same reasons advanced in connection with claim 9.

Proposed claim amendment for claim 14

Claim 14 presupposes that different extents have different associated instructions and that these instructions can differ from one another. Accordingly, Applicant proposes amendments to explicitly recite first and second extents having different processing instructions.

Section 102 rejection of claim 14

The Office appears to be confusing "data" with "instructions."

It is beyond dispute that *Kedem* teaches data for specifying where a particular extent is. This *data* obviously differs from one extent to the next. But this is just *data*, not *instructions*. *Data* and *instructions* are different.

When asked to quote verbatim what processing instructions a lock was believed to be associated with, the Office responded with col. 9, lines 43-50 and col. 7, lines 46-52, neither of which have anything to do with the locks that were originally mentioned in col. 8, lines 62-67. Nevertheless, it is useful to analyze these passages in detail.

The first passage that allegedly teaches processing instructions associated with a lock (col. 7, lines 46-52) reads as follows:

> "A TOD field **105** contains the time at which the extents track was formed. This information is available for use by a host application. A field **106** identifies a first extent that is always 0 to indicate the first record in a track in one embodiment. A last extent entry **107** identifies the last used extent relative to the extent in the first extent entry **106**. A PB offset vector entry **108** contains a number of entries that identify the first and last extent elements or buffers for a particular session."

This first passage describes how *Kedem*'s system determines when an extent track was formed, and how the first and last extents are identified. This passage thus refers to data associated with extents, not *instructions* associated with extents.

The second passage that allegedly teaches processing instructions associated with a lock (col. 9, lines 43-50) reads as follows:

> "FIG. 8 depicts the operation of the copy program **84** shown in FIG. 1. In step **150** the source device controller **87** reads the extents track, such as the extents track **75** in FIG. 3. Step **151** uses the data from the extents track **75** to obtain the location of the initial destination track and step **152** identifies the destination device so these two items specifically locate the first destination track within the data storage facility **24** in FIG. 1."

This second passage merely describes how the *Kedem* device identifies a location at which data is to be written. At best, it describes how certain data about an extent is made available. It has nothing to do with associating any instructions with an extent.

Applicant submits that the Office has confused "data" with "instructions" and that what *Kedem* really teaches is data associated with extents, not instructions. Accordingly, Applicant requests reconsideration and withdrawal of the rejection of claim 14.

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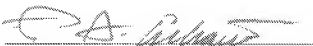Attorney's Docket No.: 07072-159001

Summary

Now pending in this application are claims 1-17, of which claims 1, 9, 14, and 16-17 are independent.

Applicant encloses a petition for extension of time together with instructions to charge our deposit account the extension fee. No additional fees are believed to be due in connection with the filing of this response. However, to the extent fees are due, or if a refund is forthcoming, please adjust our deposit account 06-1050, referencing attorney docket "07072-159001."

Respectfully submitted,

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